

S&P 500 5,570 * Dow Jones Industrials 40,713 * 30 year U.S. Treasury Bond 4.13%

Lithium atoms are *extremely* small and light; heavier than helium but lighter than oxygen or nitrogen. The metal is highly reactive, and the tiny size of its atoms is one reason it's so good for batteries. "Lithium" says Drugs.com, "is used to treat the manic episodes of manic depression." You shouldn't ever see euphoria in the market for lithium.

Of *course* we did. The price of lithium carbonate skyrocketed from less than \$5 a pound in 2021 to more than \$35 in 2022. It stayed above \$30 for a full year, just long enough to cause a big increase in supply. *Just as your college economics textbook predicted.*

Low lithium prices—it's back at \$5 a pound—will cause an increase in demand. Battery prices are still very high, but next year we should see cheaper electric cars, trucks, lawn mowers, chain saws, and power tools.

EV prices would fall *much*, *much more* if our government would cancel the **100% tariff** that it slapped on Chinese electric vehicles three months ago. Chinese EVs are small,

MAGIC METAL

inexpensive (\$12,000!), and much better for the environment because they don't weigh much. The tariff is **really bad for the environment.** It's a subsidy for American automobile companies. It's a subsidy for the auto unions.

American EVs aren't selling. They cost too much. Here we are, handing out \$7,500 gifts to rich people who buy electric cars, excusing the vote-buying and other ugliness by saying that it helps the environment. And then we take a giant leap into hypocrisy by pushing up the weight, the cost, the power consumption, and the environmental impact of American electric vehicles. It's not just the recent tariff; we've long had a ban on the importation of small pickup trucks, and there are lots of other crazy/foolish regulations that have pushed us toward HUGE pickup trucks and HUGE SUVs. The Corporate Avg Fuel Economy standards are a sick joke.

Our fleet of nuclear power plants (perfect for charging cars at night) is shrinking rather than growing; our government doesn't seem to be able to



build charging stations; our politicians would sell their souls to push down gas prices; and our farms and forests are still being converted, week by week, to pavement, concrete, steel, and glass. We've spent a trillion dollars on climate change, and the climate isn't any better.

BUT: lithium demand is going to go up a lot, because the price of lithium went down a lot. The U.S. government can't kill EV sales outside the United States, so they will grow. Electric bus, truck, motorcycle, and lawn mower sales will grow. And low lithium prices will spur the installation of gigantic batteries that store solar and wind power, and buffer the surges of electric power demand that utilities have to cope with every day. The vast majority of the utility-scale batteries in the world are made with lithium. That's because they last a long time, they hold a lot of power that they can discharge quickly, and (unlike

Continued on page 2

MAGIC METAL continued from Page 1

sodium-sulfur batteries) they don't need to be kept at 600° F.

There's more. Exxon, Occidental Petroleum, Equinor, the state-owned Norwegian oil firm, Saudi Aramco, and ADNOC of the United Arab Emirates, are investing in lithium. Not the hard rock lithium that Australia is known for, but rather the ancient-seabed lithium commonly found in South America:

"Big oil's enthusiasm for lithium makes sense. Demand for the stuff is likely to rise as more of the world's machines go electric. In contrast to running the unfamiliar businesses of solar and wind power, oil firms already have expertise that is useful in lithium mining. Extracting the white metal involves tapping saltwater brine, often underground. This requires careful mapping of reservoirs and precision drilling-skills oilmen have honed over decades of subsurface crude extraction (in which brine also happens to be a common waste product)... Refining the extracted metal is likewise similar to what oil companies do in their petrochemicals businesses."

— The Economist

We now own shares of Arcadium Lithium (ALTM - \$2.68). We owned shares of a predecessor, pre-merger company named Livent, but sold them in 2022 when lithium prices were high. The company has tremendous expertise in extracting lithium from ancient sea beds, and it's small enough that a big oil company could buy it with the petty cash they find in the till on a Friday afternoon.

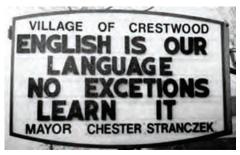
"People don't have a strong intuitive sense of how much bigger 1 billion is than 1 million.

- 1 million seconds is about 11 days.
- 1 billion seconds is about 31.5 years"

— Paul Franz, on X.

1 **trillion** seconds is 31,510 years. A trillion dollars is a thousand billion dollars, a.k.a **one BAJILLION** dollars.

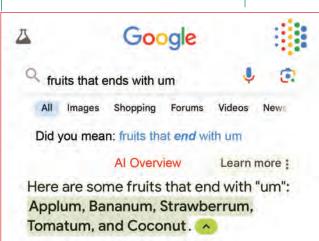
The \$7,500 tax credit for EVs reduces the taxes that people pay. It causes federal tax revenue to look smaller. Similarly, the subsidies for wind, solar, and many kinds of manufacturing cause lower tax rates for corporations and wealthy people.



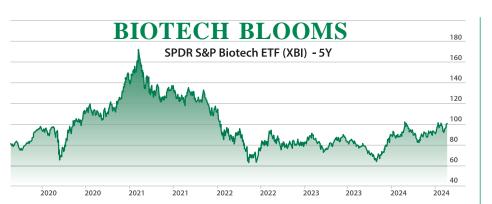
"There is a mistaken belief that meritocracy somehow conflicts with diversity. I strongly disagree. No group has a monopoly on excellence. A hiring process based on merit will naturally yield a variety of backgrounds, perspectives, and ideas. Achieving this requires casting a wide net for talent and then objectively selecting the best, without bias in any direction.

We will not pick winners and losers based on someone being the "right" or "wrong" race, gender, and so on. It should be needless to say, and yet it needs saying: doing so would be racist and sexist, not to mention illegal."

— Alexandr Wang, the 27-year-old who became the world's youngest self-made billionaire after he dropped out of MIT to co-found Scale, an artificial-intelligence firm, in 2016.



We don't believe the Wall Street rumor that Google (Alphabet, GOOG - \$165) is "behind" in A.I. Google developed the Transformer, the key technology behind ChatGPT.



Biotech and drug stocks soared during and after the pandemic, when investors realized that new drugs and vaccines really do save lives. Then they lost interest and moved on to something else.

Thing is, biotech companies used their moment in the sun to raise lots of money and hastily launch a hundred clinical trials. Many of these failed in the early rounds.

"Among the greatest beneficiaries from the rise of remote work are people with disabilities, who've entered the US workforce at record levels over the past three years.

Working from home—along with flexible hours, job sharing and other adjustments—has given people who were once on the margins of the labor market the opportunity to join it."

— Bloomberg.com

Work from home has surely been a very good thing for productivity. Smartphones used to make many workers less productive, but since Covid they've made our firm more HOWEVER there was also a lot of great science that slowly progressed through the long agony of clinical trials.

We added to our holding of the SPDR S&P Biotech ETF (XBI – \$100) in early August, after looking at the projected earnings for the top holdings. Drugs are coming to market, and earnings are jumping higher!

GROWTH

efficient and productive. Some of these newsletter articles were dictated into a smartphone, in the wee hours of the night or while driving, and then pasted into Microsoft Word. Word, that is, *either* at the office or at home.

And what about A.I.? What about the GLP-1 drugs such as Wegovy and Mounjaro? It's reasonable to bet that slimmed-down workers will miss fewer days from work, and become more vigorous and productive during their A.I.-aided work hours. If this is true, the result will be lower inflation, faster GDP growth, and increased wealth for everyone. It's potentially a BIG DEAL.



Drew D. Kellner, CFA

"Most of the time, THE NEXT **GREAT THING** just isn't that great, although it always makes for fantastic copy. Let us raise a glass to 3-D televisions, the metaverse, blockchains, NFTs, fake meat, Segways, and Napster. Let's all fondly remember Netflix Owikster, Apple cars, Apple Pippin, Apple eWorld, HP iPods, Windows Mobile, Microsoft Zune, and Microsoft Bob. Let's spend a moment recalling the rise and fall of Flip camcorders, WeWork, Webvan, Juicero, nanotech, superconductors, Theranos, Solyndra" ... [we removed *nineteen items for brevity*] ... "Turns out, it isn't easy to change the world."

"Now to be clear, sometimes the next great thing really is that great. Personal computers, Wi-Fi, cloud computing, iPhones, social media, the internet, streaming television, Google, Facebook, YouTube. And by the way, there were naysayers on all of those."

— Eric Savitz in <u>Barron's</u>



GREEN PLAINS

Ethanol, the stuff that goes into gasoline, is a lousy commodity business with slim margins. The competitors are losing money, and the only reason they make money at all relates to federal policies. We nevertheless bought Green Plains (GPRE - \$13.60), because we think they'll find success with at least a couple of the programs they have under way, trying to get more value from the corn they turn into ethanol.

Those kernels contain protein that makes a valuable feed for our growing aquaculture industries. They contain corn oil that can be sold as biodiesel or Sustainable Aviation Fuel—at artificially-high prices created by the Inflation Reduction Act. And they contain cellulose that can be used to produce "cellulosic" ethanol that fetches extremely-high artificial prices created by the "Inflation Reduction" Act. *SIX TIMES higher.*



Fruits that end with um.

Please, Please download our app!

You'll need to create a unique user name—not your email address and *a password that you don't use for any other app or website* with at least 15 characters. At least one uppercase letter. At least one lowercase letter. At least one number. At least one symbol chosen from: $!@#\$^$. No spaces. At least one symbol chosen from: *<(?)> BUT NOT: %, +, or &. Do not share this password with any other site.

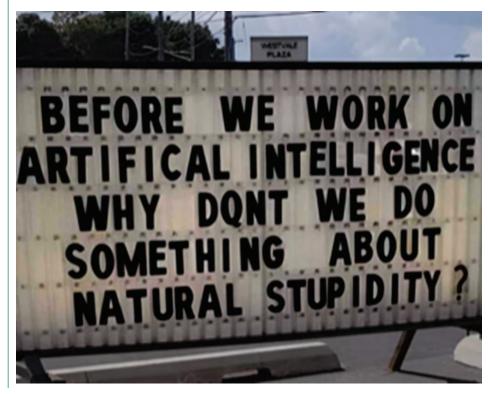
Don't Worry: If you forget your complex, unique password we'll send you an email and let you, or anyone with access to your email, pick another one.



"Sam Altman wants to save us from the AI-dominated world he is building. The trouble is, governments aren't buying his plan, which involves an attempt to scan the eyeballs of every person on Earth and pay them with his own cryptocurrency."

— The Wall Street Journal

Altman is the controversial CEO of ChatGPT's OpenAI, which was supposed to be a non-profit without patents or secrets. Critics question his commitment to reducing the huge risks of artificial intelligence.





For decades we've been cleaning up trash on islands off the coast of Maine with the Maine Island Trail Association. Maine's 4,600 islands act as a sieve to grab garbage that circulates in the Gulf of Maine. We once participated in a weekend operation that harvested 130 lobster traps, most of them weighted with bricks and some hanging in trees and shrubs, from Burnt Island.

If we assume that volunteers have harvested 3 tons a year in the last 10 years, that would total an impressive 30 tons. In our last newsletter we suggested that the **800 foot** wind towers that have been put in the ocean south of Martha's Vineyard are far too tall to withstand hurricanes. They haven't even been challenged by an imperfect storm, but in July one of the **351-foot**, **55-ton blades** broke in half. Pieces washed up on Nantucket and Cuttyhunk; 30 tons might have fallen in the ocean. 10 years of MITA trash cleanups, undone in less than a minute.

Tilting At Windmills

"For neither good nor evil can last for ever; and so it follows that as evil has lasted a long time, good must now be close at hand."

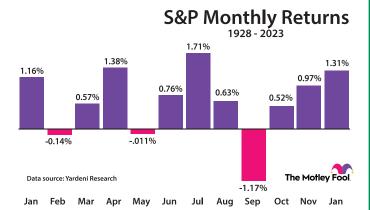
— Don Quixote



Jay Conway, CFA

The recent expansion of Georgia Power's Vogtle nuclear installation made it the largest source of clean power in the nation. It's especiallyvaluable power because hyperscale companies like Microsoft, Google, and Amazon have pledged to use non-polluting low-carbon power and they *have to have* **uninterrupted** power that doesn't stop when the wind stops blowing.

High-tech companies have already grabbed all the extra output! Electric rates had to go up a lot to get the plants built, and now Georgia Power, a subsidiary of Southern company (SO - \$86), will have to build gas-fired plants to cover future shortfalls.



SEPTEMBER IS THE CRUELEST MONTH

Yes, it's true. September has been the worst month, and we can't give you any reason why this one will be better. Maybe we'll sell a slightly-overpriced holding, but mostly we'll just stay the course and wait for the historically fat months of November, December, and January.

It's best to keep our eyes on the long term.



This monument in the center of Hollis New Hampshire lists 17 of the 18 men who died in the civil war. It doesn't list those who lost limbs or were otherwise injured, and it doesn't list the total number, incredible for a tiny town of 1,370 people, who walked 2,000 miles to fight the soldiers of the slaveowning South.

Is there injustice in our history? Of course. There is also a stunning amount of sacrifice, effort, ingenuity, charity, and goodness.

"Bad things happen really fast. Good things take time."

— An emergency room doctor, to a hospital intern who happens to be the lead singer of The Knowhere Kids, a local rock band.

INACTION

"Venezuelans hoping to restore their liberty are in the fight of their lives. Opposition candidate Edmundo González Urrutia won 67% of the vote against strongman Nicolás Maduro's 30% in the July 28 presidential election. But the military dictatorship refuses to recognize its defeat and has unleashed a ruthless crackdown.

"Caracas says it has arrested some 2,000 people, and press reports say 23 civilians have been killed ... As Venezuelans stick their necks out for democracy and freedom, they deserve full-throated American support."

— Mary Anastasia O'Grady, in the Wall Street Journal

Maduro's predecessor Hugo Chavez railed against the wealthy; he spoke for the little people; he bought their votes with gifts of property seized from landowners and employers. He impoverished the nation. He imprisoned his political opponents.

The U.S. response has been a whisper. Are we for the brutal dictatorship of "democratic socialism" and the universal poverty of redistribution, or are we for democracy?



"There's no "writer's block". There's lazy, there's scared ... but there's no "writer's block". Just sit down and realize you're mediocre; and you're going to have to put a lot of effort into this to make it good."

— Jerry Seinfeld

"All of us are here to save the Revolution and save socialism."

— Diaz-Canel, President of Cuba

"Cuba's government said late on Sunday it would double down on price controls ... in an increasingly desperate bid to tamp down on a ballooning fiscal deficit and spiraling inflation that have devastated its economy."

- Reuters

– John Lumbard, CFA

General Disclosures: The contents of these Insight Newsletters are for General Educational Information and Market Commentary only. Our goal is to provide Educational Communications that are limited to providing general information about investing, such as information about types of investment vehicles, asset classes, strategies, certain geographic regions, or commercial sectors. None of the material contained in our Newsletters should be construed as constituting an offer of our investment advisory services with regard to securities or a recommendation as to any specific security. These Newsletters are only opinion commentary. Similarly, materials that provide our general market commentary are not intended to offer advisory services with regard to securities. Our Market Commentary and Opinions rendered are aimed at informing current and prospective investors of market and regulatory developments in the broader financial ecosystem. Nothing in our Newsletters should be construed as a guarantee, warrantee or prediction of future economic or market events, political events, any portfolio results, advisory account returns, or other outcomes.

LUMBARD & KELLNER, LLC POST OFFICE BOX 749 • HOLLIS, NH 03049 • (603) 465-7700